

Product Data Sheet

Cat # ABT-290-10	Phosphonomycin, Disodium (Pharma Grade)	Size: 10 g
Cat # ABT-290-100	Phosphonomycin, Disodium (Pharma Grade)	Size: 100 g

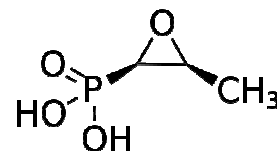
General Information

Fosfomycin (also known as phosphomycin and phosphonomycin) is a broad-spectrum antibiotic produced by certain *Streptomyces* species.

It is indicated in the treatment of urinary tract infections, where it is usually administered as a single oral megadose. The drug is well tolerated and has a low incidence of harmful side-effects. However, development of bacterial resistance under therapy is a frequent occurrence and makes fosfomycin unsuitable for sustained therapy of severe infections.

Fosfomycin inhibits bacterial cell wall biogenesis by inactivating the enzyme UDP-N-acetylglucosamine-3-enolpyruvyltransferase, also known as MurA. This enzyme catalyzes the committed step in peptidoglycan biosynthesis, namely the ligation of phosphoenolpyruvate (PEP) to the 3'-hydroxyl group of UDP-N-acetylglucosamine. This pyruvate moiety provides the linker that bridges the glycan and peptide portion of peptidoglycan. Fosfomycin is a PEP analog that inhibits MurA by alkylating an active site cysteine residue (Cys 115 in the *Escherichia coli* enzyme).

Fosfomycin enters the bacterial cell through the glycerophosphate transporter.



Molecular Formula:
C₃H₇O₄P
Molecular Weight:
138.06g/mol

APPEARANCE	WHITE TO OFF-WHITE POWDER
SOLUBILITY	CLEAR COLORLESS TO FAINT YELLOW SOLUTION AT 50MG/ML OF WATER
PROTON NMR SPECTRUM	CONFORMS TO STRUCTURE
CARBON-13 NMR SPECTRUM	CONFORMS TO STRUCTURE
PURITY BY THIN LAYER CHROMATOGRAPHY	> OR = 98%
POTENCY	> OR = 710 MICROGRAMS/MG
RECOMMENDED RETEST	3 YEARS

ABT-290-10 110519AO

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